

OS-9 Newsletter

Volume III No. 3

Bellingham OS-9 Users Group

March 31, 1992

Basic09 Part -6

Tutorial

by Scott Honaker & Rodger Alexander

I know I promised this would be the last installment on our Basic09 Tutorial, but, the *sort* and *pack* routines are not finished yet. Hopefully they will be presented at the April 7th meeting of the Seattle 68xxxMUG.

ALSO a quick comment about last month's *jump_search* procedure. Although it is fast and efficient, it does present some special problems for our database. The "binary search" method assumes that the field being searched is sorted in alphabetical order. This would require the database to sort the search field before initiating the search routine. If the database were to be limited to searching only one field and a sort routine initiated after any record was added or deleted (*sounds a little like dBase III/IV to me*), then the binary search (*jump_search procedure*) would be the only way to go.

```
PROCEDURE Sort_DB
REM Input routine to determine
REM primary sort field
REM by Scott Honaker
PARAM DB_Path:BYTE; Top:INTEGER
DIM field:BYTE

PRINT CHR$(12) \ PRINT
PRINT "Personal Database System -
Sort Database"
PRINT
PRINT "Sort on which field:" \
PRINT
PRINT "1) First Name"
PRINT "2) Last Name"
PRINT "3) Address 1 field"
PRINT "4) Address 2 field"
PRINT "5) City"
PRINT "6) State"
PRINT "7) Zip code"
PRINT "8) Phone number" \ PRINT
INPUT "Enter choice: ",field

PRINT "Please wait...sorting"
RUN Sort(DB_Path,Top,field)
END
```

Listing 1

-- IN THIS ISSUE --

| | |
|--|-------|
| Basic 09 Tutorial (Part VI) Basic09 Database Search Routine Procedure | Pg. 1 |
| Bernie's Bit_Bucket "It's Rodger's Fault Correction for last month's listing | Pg. 2 |
| BLACKHAWK Enterprises More Support for OS-9/ OSKPC Switching | Pg. 3 |
| Convert Disk Controller Eprom Socket Replace 24pin socket with 28 pin | Pg. 3 |
| Power Supply Wiring PC Supply to CoCo-3/Multipak | Pg. 4 |
| C-Language Tutorial: Chapter I Complete with Sample Source Codes | Pg. 6 |
| OS-9 Patch Upgrade | Pg. 8 |
| Club Activities Report | Pg. 9 |

However, Scott reminded me that we want to be able to search on any field and not worry about the added steps of sorting the desired search field. So the binary search method is out! (*Grumble, Grumble*) Now I'll have to write another Search routine....OR, wait for Scott to write it!

This month we'll present the "SORT" routine. Actually it is composed of two procedures. The first procedure is called *Sort_DB*. This Procedure prompts the users for the field to sort the database. The result is passed on to the second *Sort* Procedure which performs a "Bubble" sort on the selected field.

```
PROCEDURE Sort
REM Generic sort routine by Scott
Honaker
REM Change the TYPE and DIM
statements to use for other data
TYPE address=FName:STRING[10];
LName:STRING[15]; address1:STRING;
address2:STRING[20];
city:STRING[15]; state:STRING[2];
zip:
STRING[10]; phone:STRING[14]
```

Listing 2 (Cont'd next page)

```

PARAM DB_Path:BYTE; Top:INTEGER;
field:BYTE

DIM records(50):address;
max_recordsINTEGER
DIM r1:address;
index,top_ptr:INTEGER;
greater,done:BOOLEAN

max_records=SIZE(records)/SIZE(r1)
IF Top>max_records THEN
top_ptr=max_records \ ELSE
top_ptr=Top \
ENDIF
SEEK #DB_Path,0
FOR index=1 TO top_ptr
GET #DB_Path,records(index)
NEXT index

REM Memory based bubble/selection
sort
done=FALSE
WHILE NOT(done) DO
done=TRUE
FOR index=2 TO top_ptr
RUN Compare(records(index-
1),records(index),field,greater)
IF greater THEN \REM Swap record 1
with record 2 and indicate swap
r1=records(index-1)
records(index-1)=records(index)
records(index)=r1
done=FALSE
ENDIF
NEXT index
top_ptr=top_ptr-1
ENDWHILE

REM Write sorted records back to
disk if finished
IF Top<=max_records THEN
SEEK #DB_Path,0
FOR index=1 TO Top
PUT #DB_Path,records(index)
NEXT index
ENDIF

```

Listing 2

After entering the above listings load in all of the other Procedures, which should be combined under the title **PDS**.

Type "RUN PDS"

From the Main Menu, Select **OPEN** to load a previously created database or Select **CREATE** to start a new database. From the Main Menu, Select **SORT**. You will be prompted to choose which field you want to sort the database. Make your selection. After a short pause, the Main Menu returns with the first sorted record displayed above the Menu options.

When finished, Select **EXIT** from the Main Menu. The screen will clear with the Basic09 prompt. By just pressing <ENTER>, you will see a display of all of the individual procedures.

Type "SAVE*PDS"

This will save all the procedures merged together back to disk under the filename "PDS". As always, type "BYE" to quit Basic09. Next month the *Search and Pack Procedures*.

If you don't like to type in all of those individual listings then you'll be pleased to know that the complete *PDS Database* will be available on disk for \$1 the end of April.



Bernie's

"BIT_BUCKET"

Last month I submitted a Basic09 Program *Callmemo*. A short procedure that turns those miles of half used fan fold sheets from your printer into useful, ornamental, decorative, recycled telephone memorandum forms. **BUT** someone goofed up on the printout of the listing. (No names mentioned, but his initials are **R.A.**, also known as "The Editor".....

*OK, OK, I admit it. I goofed. No excuses offered (It's this newsletter software). Somehow a part of the listing got deleted. Please append the following code to **LISTING 1** in last month's article:*

```

PRINT #printer,blank
PRINT #printer,undlin
PRINT #printer,blank
PRINT #printer,undlin
PRINT #printer,blank
PRINT #printer,undlin
PRINT #printer,blank
PRINT #printer,undlin
PRINT #printer,blank
NEXT count
CLOSE #printer
PRINT CHR$(12)
PRINT \ PRINT \ PRINT \ PRINT \
PRINT \ PRINT
PRINT \ PRINT \ PRINT \ PRINT \
PRINT \ PRINT
PRINT "
If you want
some more you'll have to run the
program again."
LET number:=13000
FOR count=1 TO number
count = count + 1
NEXT count
END

```

BlackHawkEnterprises

This is to acquaint you with a new company in the CoCo/OS-9 world. BlackHawk Enterprises is dedicated to supporting the MM/1, Delmar Systems IV, TC-70, TC-9, and Color Computers.

We will be providing a number of services for the CoCo Community. From our first day of business activities, we have been working to acquire the rights to distribute high quality software for Color Computer 3 Level 2 OS-9 and OSK. We will continue to do so. We will also, from time to time, acquire the distribution rights to RS-DOS software such as Bob van der Poel Software's complete line. Already we are prepared to sell the MM/1 computer, and Interactive Media Systems, Inc.'s complete line of software and hardware support. Our suppliers also include Sub-Etha Software, famous for Checkbook+ and MiniBanners! Look soon for OS9Stat from New Horizons Software, another new star on the CoCo horizon. We will be selling general OS-9/68000 software suitable for the TC-70, and Delmar System IV. Of course, our Level 2 OS-9 software will run on the TC-9. We will not stop there!

One of our first projects involves solving a critical need for the CoCo community. Many of our users can not afford to use a modem to acquire software and patches from DELPHI or other network systems. We intend to solve this by offering a complete line of PD and Shareware software for OS-9 (and RS-DOS, if the need should itself!) and OSK. Present offerings include ShellPlus2.1, GShell+, patches for cc3io, aciapak, cc3disk, rbfman, Dynacalc (c), a variety of C source code, several games, and many utilities. Prices will range from \$15 for 360k disks of CoCo OS-9 or RS-DOS software, to \$35 for 1.44 megabyte disks of OSK software. OSK software will include FLEX, GAWK, BISON and the GNU C and C++ compilers, as well as AUTODOC, a program that automatically documents C programs! We have many good offerings here, and by offering a \$5.00 rebate for new PD software I hope to have much, much more. This rebate will be paid as a discount on the transfer fee for PD or Shareware items already in stock, and is subject to approval by our staff.

Please write us with comments on where you think the OS-9 community should be going. I am especially interested in answering questions about the MM/1. The quality and amount of new software for this machine before its availability for retail sale is phenomenal! I have seen Prolog, FORTRAN, Xlisp, C, C++ languages, SC spreadsheet, SCalc scientific calculator, GAWK pattern processing language, FLEX lexical analyzer, and much much more, and this is JUST THE PUBLIC DOMAIN STUFF!!!!!!!!!!!!!! The commercial offerings are on their way, including Calc9 spreadsheet, Paint graphics editor, TASCOM terminal program, and a great deal more. These new machines will be able to support graphics digitizers, MIDI programs, CD-ROM and CD-Interactive drives, huge hard drives, and tape backup systems. Please write to us and share YOUR interests today!

--David M. Graham --
(NIMITZ - Delphi)

DISK CONTROLLER

28PIN TO 24PIN EPROM CONVERSION

Eproms are Integrated Circuit Chips that can be "burned" or programmed as ROM Chips. Your Floppy Disk Controller has a Disk Basic ROM Chip that contains all of the instructions your CoCo needs in order to access your floppy drive.

Modifying the Disk Basic Instruction Set is a popular way to get your CoCo to access double sided drives, higher stepping rates and 40 tracks instead of 35. Replacement Disk Operating Systems such as ADOS, CDOS, MJKDOS and Extended ADOS can be burned (programmed) onto an EPROM Chip and then plugged into your Disk Controller ROM socket.

Unfortunately, the most popular EPROM's (2764, 27128) are 28 pin EPROM's while most disk controllers use 24 pin ROM's. It is possible to make up a 28 to 24 pin conversion header IF you have enough head room to permit the header socket located between the original ROM socket and the EPROM and the top of the case.

If you do not have enough room for a conversion header and you just gotta have that 28 pin EPROM, then you will have to rip out (unsolder) the old 24 pin ROM socket and replace it with a 28 pin IC socket. See Instructions Below:

28 pin IC socket (RS # 276-1997)

1. Jumper pin 1,27, 28 together
2. Jumper Pin 1 on the socket to Land line 9 of card edge (5volts).
3. Jumper Pin 2 on the socket to Land line 31 on the card edge (data line A12).
4. If you are planning on using a 27128 16K EPROM, Solder a 10K resistor from Pin 27 and Pin 26 to ground through a switch to select the upper 8K of a 16K 27128 EPROM **OR** solder Pin 26 to Land line 37 (data line A13) to use the entire 16K 27128 EPROM. If you are planning on using a 2764 8K EPROM, solder Pin 26 to Land line 37
5. Jumper Pin 14 to 20 and cut the trace line at pin 20 on the PC Board.
6. Jumper Pin 23 to Land line 30 then cut trace line that goes to pin 20 on the PC Board (originally Pin 18).
7. Cutoff Pins 1,2,28,27,26
8. Tape over old hole 24 on the circuit board using electrician tape.
9. Mount and solder the 28 pin socket on the PC board.

If you would like more detailed information check the July 1986 issue of *The Rainbow Magazine*.

-- Jeff Brittan --
Seattle 68xxxMUG

Connecting a PC Power Supply

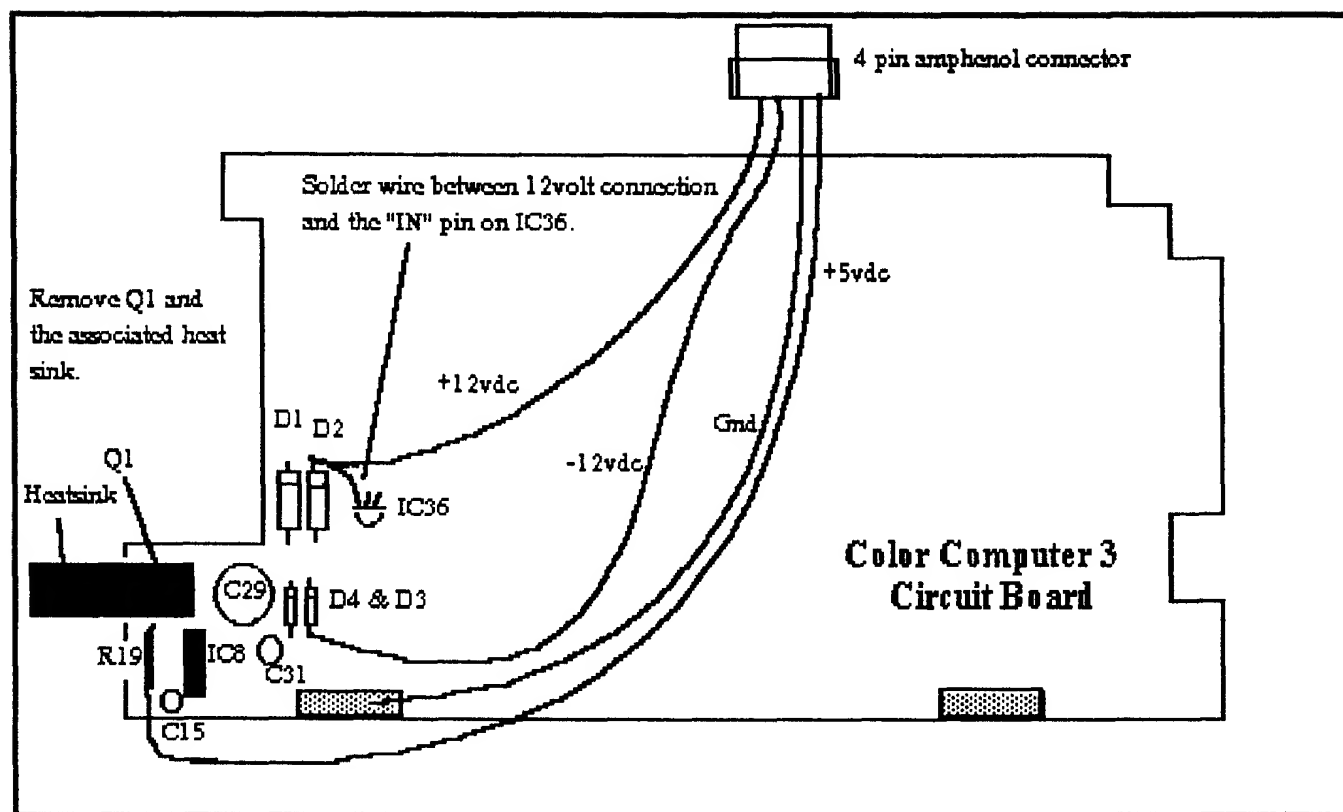


Fig. 1

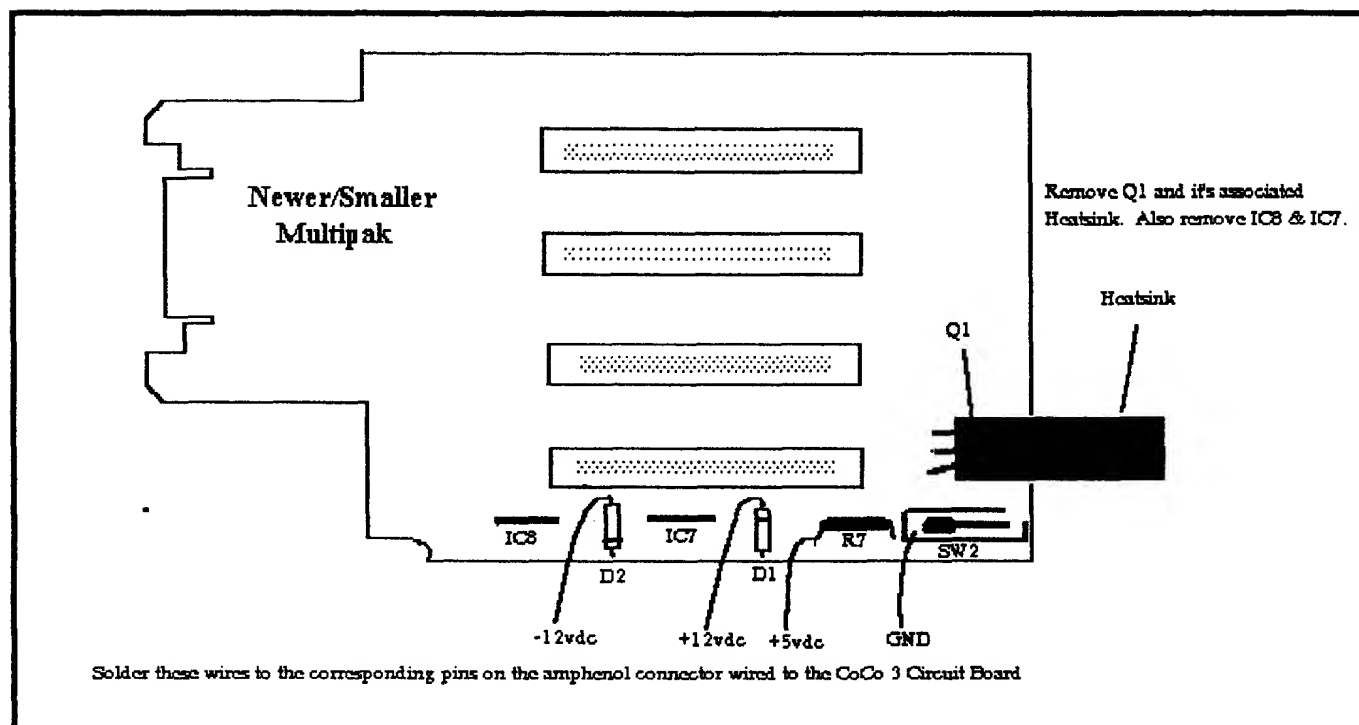


Fig. 2

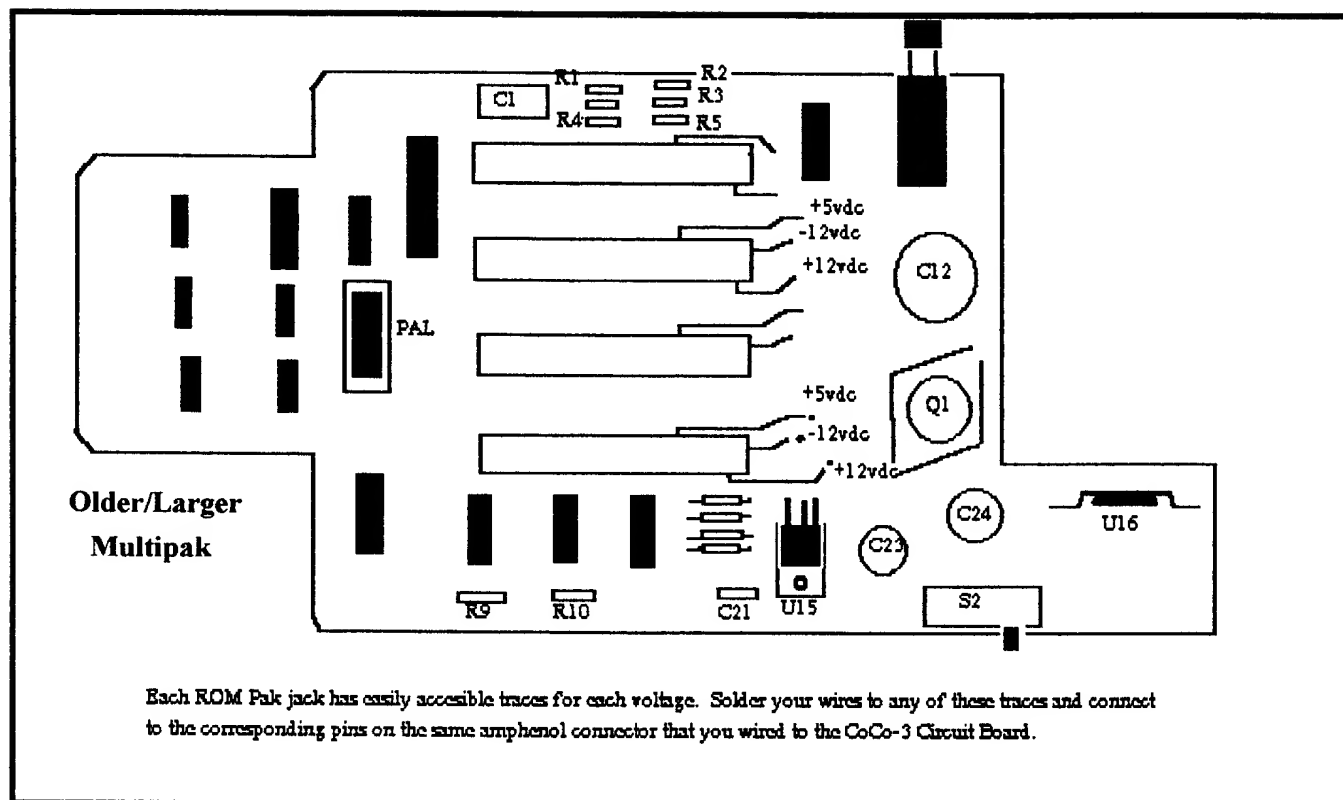


Fig. 3

Regardless of which Multipak you use, connect the wires to the same amphenol connector that you attach to the CoCo-3 Circuit Board (See Figure 1). Check your work using an ohm meter/continuity checker to be sure that the corresponding voltage lines on both the Multipak and the CoCo-3 are connected to the same pins on the amphenol connector.

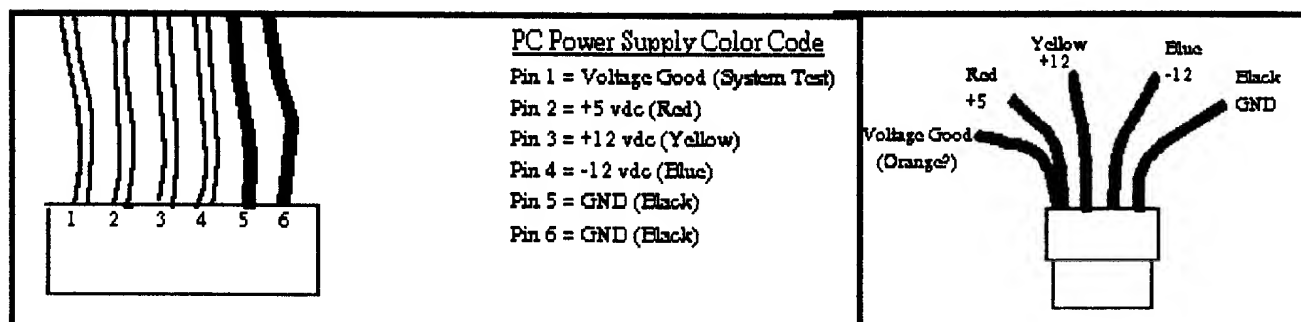


Fig. 4

Fig. 5

Your PC Power Supply will have two 6-pin connectors designed to plug into a PC Circuit board. If your power supply is for an AT machine (80286, 80386, 80486) then you will see the above color coded wires on one of the two 6-pin connectors. *The Black ground wires will always be pins 5 & 6.* Cut this connector off and replace with a male 4-pin amphenol connector. Solder the "Voltage Good" wire to the Red wire (5volts) before soldering the Red wire to one of the amphenol pins. If your Power Supply is for an XT machine (8088, 8086) then simply ignore the "Voltage Good" wire. Solder the Black, Blue and Yellow wires to the remaining amphenol pins and insert the pins into the amphenol casing so that they will match the corresponding wires on the female amphenol connector attached to the CoCo/Multipak Circuit Boards.

C Tutorial

Chapter 1

Editor's Note: I've always wanted to learn C but I have not demonstrated the self discipline necessary to succeed. So I figured that by preparing monthly tutorial installments would be a guaranteed method to achieve my goal and maybe yours.

INTRODUCTION:

Since C is not a beginners language, I will assume you are not a beginning programmer, and I will not attempt to bore you by defining a constant and a variable. You will be expected to know these basic concepts. You will, however, be expected to know nothing of the C programming language. I will begin with the most basic concepts of C and take you up to the highest level of C programming including the usually intimidating concepts of pointers, structures, and dynamic allocation. To fully understand these concepts, it will take a good bit of time and work on your part because they are not particularly easy to grasp, but they are very powerful tools. Enough said about that, you will see their power when we get there, just don't allow yourself to worry about them yet.

WHAT IS AN IDENTIFIER?

Before you can do anything in any language, you must at least know how you name an identifier. An identifier is used for any variable, function, data definition, etc. In the programming language C, an identifier is a combination of alphanumeric characters, the first being a letter of the alphabet or an underline, and the remaining being any letter of the alphabet, any numeric digit, or the underline.

Two rules must be kept in mind when naming identifiers.

1. The case of alphabetic characters is significant. Using "INDEX" for a variable is not the same as using "index" and neither of them is the same as

using "InDeX" for a variable. All three refer to different variables.

2. As C is defined, up to eight significant characters can be used and will be considered significant. If more than eight are used, they may be ignored by the compiler. This may or may not be true of your compiler. You should check your reference manual to find out how many characters are significant for your compiler. It should be pointed out that some C compilers allow use of a dollar sign in an identifier name, but since it is not universal, it will not be used anywhere in this tutorial. Check your documentation to see if it is permissible for your particular compiler.

WHAT ABOUT THE UNDERLINE?

Even though the underline can be used as part of a variable name, it seems to be used very little by experienced C programmers. It adds greatly to the readability of a program to use descriptive names for variables and it would be to your advantage to do so. Pascal programmers tend to use long descriptive names, but most C programmers tend to use short cryptic names. Most of the example programs in this tutorial use very short names for that reason. Any computer program has two entities to consider, the data, and the program. They are highly dependent on one another and careful planning of both will lead to a well planned and well written program. Unfortunately, it is not possible to study either completely without a good working knowledge of the other. For this reason, this tutorial will jump back and forth between teaching methods of program writing and methods of data definition. Simply follow "Chapter 1 - Getting Started" along and you will have a good understanding of both. Keep in mind that, even though it seems expedient to sometimes jump right into the program coding, time spent planning the data structures will be well spent and the final program will reflect the original planning.

HOW THIS TUTORIAL IS WRITTEN

As you go through the example programs, you will find that every program is complete. There are no program fragments that could be confusing. This allows you to see every requirement that is needed to use any of the features of C as they are presented. Some tutorials I have seen give very few, and very complex examples. They really serve more to confuse the student. This tutorial is the complete opposite because it strives to cover each new aspect of programming in as simple a context as possible.

CC1:

The Microware C Compiler includes an executable module *CC1* that calls the compiler (Pass 1 and Pass2). When you write your C programs with your favorite text editor you will be able to compile *your program.c* with the command:

CC1 your program.c

The pass or passes of the compiler will be executed, followed by the linking process. The final program will be loaded and run, then the files generated by the process will be erased to prevent filling the disk up. If you have a hard disk available, it will be up to you to modify your Microware C compiler files to perform the above described operations on the appropriate directories and hard drive.

YOUR FIRST C PROGRAM

The best way to get started with C is to actually look at a program, so type in the listing for *TRIVIAL.C* on your favorite text editor. You are looking at the simplest possible C program. There is no way to simplify this program or to leave anything out. Unfortunately, the program doesn't do anything.

```
TRIVIAL.C
main()
{
}
```

Listing 1

The word "main" is very important, and must appear once, and only once in every C program. This is the point where execution is begun when the program is run. We will see later that this does not have to be the first statement in the program but it must exist as the entry point. Following the "main" program name is a pair of parentheses which are an indication to the compiler that this is a function. We will cover exactly what a function is in due time. For now, I suggest that you simply include the pair of parentheses.

The two curly brackets, properly called braces, are used to define the limits of the program itself. The brackets are typed in on the CoCo Keyboard by using the "CTRL-(" and "CTRL-)". The actual program statements go between the two braces and in this case, there are no statements because the program does absolutely nothing. You can compile and run this program, but since it has no executable statements, it does nothing. Keep in mind however, that it is a valid C program.

PROGRAM THAT DOES SOMETHING

For a much more interesting program, type in the program listing WRTSOME.C. It is the same as the previous program except that it has one executable statement between the braces.

```
WRTSOME.C
main()
{
    printf("This
is a line of
text to
output.");
}
```

Listing 2

The executable statement is another function. Once again, we will not worry about what a function is, but only how to use this one. In order to output text to the monitor, it is put within the function parentheses and bounded by quotation marks. The end result is that whatever is included between the quotation marks will be displayed on the monitor when the program is run.

Notice the semi-colon at the end of the line. C uses a semi-colon as a statement terminator, so the semi-colon is required as a signal to the compiler that this line is complete. This program is also executable, so you can compile and run it to see if it does what you think it should.

A PROGRAM WITH MORE OUTPUT

Type in the program WRTMORE.C for an example of more output and another small but important concept.

```
WRTMORE.C
main()
{
    printf("This is a
line of text to
output.\n");
    printf("And this
is another ");
    printf("line of
text.\n\n");
    printf("This is a
third line.\n");
}
```

Listing 3

You will see that there are four program statements in this program, each one being a "printf" function statement. The top line will be executed first, then the next, and so on, until the fourth line is

complete. The statements are executed in order from top to bottom.

Notice the funny character near the end of the first line, namely the backslash. The backslash is used in the printf statement to indicate a special control character is following. In this case, the "n" indicates that a "newline" is requested. This is an indication to return the cursor to the left side of the monitor and move down one line. It is commonly referred to as a carriage return/line feed. Any place within text that you desire, you can put a newline character and start a new line. You could even put it in the middle of a word and split the word between two lines. The C compiler considers the combination of the backslash and letter n as one character.

A complete description of this program is now possible. The first printf outputs a line of text and returns the carriage. The second printf outputs a line but does not return the carriage so the third line is appended to that of the second, then followed by two carriage returns, resulting in a blank line. Finally the fourth printf outputs a line followed by a carriage return and the program is complete.

Compile and run this program to see if it does what you expect it to do. It would be a good idea at this time for you to experiment by adding additional lines of printout to see if you understand how the statements really work.

Next month we'll get into printing numbers, adding comments and proper format style.-----

CoCo Fest II

June 26-27 Port Orchard, Washington

HELP Put together a complete OS-9 Patch Upgrade

This file describes the upgrades or patches to be presented in the upgrade2.5 package. Since many patches aka kludges are going to be used and presented I am going to use the name of the drivers affected by the patches. Following each driver is the patch type and possibly the author if the information is available. If you are aware of any other patches or more recent patches, I would appreciate being notified. I am seeking not only to notify OS-9 Level Two users of the upcoming upgrade but to also seek your input on anything I may have missed or should incorporate into the package.

| Driver | Patch | Description and author----- |
|------------|-------------|--|
| Kernal | Yes | ----- Filenames and memory size detection. |
| Rel | None | |
| Boot | Yes | Change the step rate of boot drive. mdopatch 00c0 03 00 017c 13 10 K Darling K Meyers. |
| os9p1 | Yes | Filenames (I have seen if for this and kernal) |
| os9p2 | Yes | Fix The Sleep bug. |
| os9p3 | New | Full length error messages. |
| os9p4 | New | New command for register dump. |
| Ioman | Yes | Wrong register in inserting by priority into queues. 09A6 10 12 09A7 A3 E1 K Darling K Meyers. |
| Init | Yes | Virq Table size 000C 0F 0C default disk (personal will not be changed) K Darling K Meyers. |
| CC3go | Yes | Allow use of shellplus parameter startup file Alternate startup files. |
| CC3io | Yes | Found in mv2pat fixes eating charregister auto kill mouse button to un pause screen. Second patch to allow serial mouses. Cursor postion in compuserv B format. |
| Clock | Yes | Many patches includeing interrupts, and ticks |
| RBF | Yes | new RBF module allows for undelete. |
| CC3disk | Yes | Disto's like with sleep The IBM read disk Patch. The Cache addition. |
| | Replacement | Uses sleep calls I belive to give better response. |
| CCHDscsi\ | | |
| CCHDsasi > | Replace | Aa new Announcement will replace thes three. |
| CCH3disk/ | | |
| SCF | Yes | Better line editing |
| ACIAPak | Yes | Buffer size / overrun char buffer size changed |
| SACIA | Replacement | Better then Aciapak more options. |
| bitbang | NEW | Allows for 1200 baud out bitbanger port. |
| Printer | None | |
| VRN | Replacement | Better memory control. replaces NIL,FTDD,VI |
| NIL | None | |
| GRFint | None | |
| WindInit | Yes | fixes a lot of little bugs Kent Meyers?? name mv2pat.ar |
| VDGinit | None | |
| PipeMan | None | |
| Piper | Yes | Possibly a patch to add named pipes |
| GRFDRV | Yes | Faster Graphics K. Darling 28 rows of text 9 bit characters and 25/24 lines of textShell |
| Shell | Replacement | Shell plus 2.1 CHD and CD changeing to open without write. |
| Gshell | Yes | Trashcan new screen types, help option, new commands |

This is a rough outline of the files and patches to be include in the package. I also want to include the ipatch utility to make the entire package self contained. I need suggestions hints or whatever from you.

Please send all comments to: Donaldlf on Delphi



Club Activity Report

*Bellingham OS9 Users Group - Longview CoCo Club
Mt. Rainier CoCo Club - Port O'CoCo Club - Seattle 68xx Mug*

Bellingham OS-9 Users Group

Still not able to meet in March. However we have found a new meeting place for FREE. The April meeting of the "Bellingham Tandy Color Computer Club (Note the name change) will meet in the conference room at the Bellingham Public Library (Main Branch) on April 22nd and the 4th Wednesday of each month from 6:45-9:00 p.m..

Since most uninitiated Color Computer Owners don't know what OS-9 is, we have decided to advertize our group for general Color Computer owners. Later on we'll subconsciously convert them to OS9! "Sounds Like a Plan"

-- Rodger Alexander --

Longview/Kelso CoCo Club

At our March meeting, we stuffed my CoCo in a IBM/XT case. ran all the ports (serial, parallel, video, and Keyboard. still working on the joystick) to the back of the case. Boy, it sure is nice to have all this room on my desk and free plug-in's to use as well as being able to have the keyboard on my lap. Then Allen, removed my ROM chip from the RS-232 pak so we could use it on a Y-cable. Then we modified the Disto 4in1 board so it would work right with RiBBS with the auto answer amd carrier detect lines. We also demonstrated some software and I showed off my new 2MHZ coco to everyone (Them .GIF flicker pictures look nice now. can't hardly notice any flicker at all. The IMG's look real good too, but have a little

flicker in them still, but look much better)

-- Mark Johnson --

Port O CoCo

CoCo is more GroGro in Port Orchard! We had over 20 people at the March meeting. We discussed and decided to have the second annual CoCoFest. It will be held June 26-27 in Port Orchard. Beginning details will be announced next month. Information will be spread around the world via FidoNet. To spread the world locally we pass around a sample of "IN THE PINK," a mailed circular delivered to 18,570 homes in South Kitsap. The advertising and promotion circular contains the names, contact people, and phone numbers of the 7 various computer clubs in the county. The ad space was donated by "IN THE PINK."

Our guest was Larry Cloud of Cloud's Corner, a local BBS based in Bremerton (206)377-4290 (377-3649 voice if you have trouble getting started). Most of us have no idea how much the medium of BBSs has grown in just the last few months. In 1990 there were 13,500 BBSs in the US. As of the first of 1992 there are over 40,000 according to Boardwatch Magazine. "And the demand still far outstrips the number of BBSs. Talk about a growth industry of the nineties!" BBSs were once the exclusive playground of the sophisticated computer hackers, now BBSs can be used by anyone with any brand computer and a modem. The fastest growing area is not the big

national BBSs like CompuServe and Prodigy, rather it's the individually operated systems. Larry's Cloud's Corner is such an example.

Larry assured us that BBSs are possible to tame. Some are specialized for particular machines others for a certain interest group (like games), but he welcomes all who are reasonably polite and have a general interest in computers. If there is a particular topic he doesn't carry he will consider adding it to his list. He repeatedly told the large group that there is NOTHING we can do to mess up or hurt his equipment or software. So our learning curve can not be a blow to his BBS. Although he works with an Amiga he welcomes ALL other computer groups. So the CoCo community has a warm friend in Larry in letting us learn about other CoCo clubs and about OS-9 around the world. (These are two special interest groups (SIGs) available via FidoNet that Larry will carry if people will read and respond to them. So give him a call and wander around!

Next month's meeting is April 20th. This is going to be a fun meeting because four large boxes of "stuff" are going to be auctioned off at unbelievably low prices. The collection is from the Computer Bank Charity. They have learned to hold aside any CoCo stuff that comes in and direct it to the Port Orchard club. All the funds from the auction will go to this great cause to give them funds for promotional

flyers, needed cables to complete systems, and occasional parts. The charity has now placed over 75 computer systems in the Puget Sound area with worthwhile non profit organizations and needy individuals.

Larry Cloud will return in April to complete his presentation with an on-line demo of his BBS. It will be a great time for anyone interested in BBSs but afraid to try it alone.

Finally, the first outline of the June CoCoFest II will be announced. It looks like it will be more than double the information and fun over last year's successful event. If you have any questions call at 871-0319 evenings.

Dennis Mott of the Spokane CoCo group visited us and contributed to the conversation about the up-coming CoCoFest II and tele-communications. He has a BBS at 1-509-325-6787 and accepts 300 baud and up. There is a very dedicated group of CoCo people in the Spokane area and they attended the CoCoFest last year

-- Donald Zimmerman --

Mt. Rainier CoCo Club

Mt. Rainier CoCo Club is now meeting at the Fern Hill Library located at 84th and Yakima in Tacoma. This facility provides a large conference room and will allow us to forgo charging dues. This was the location of the March meeting.

Club President, Randy Kirschenmann opened the meeting and John Schliep presented us with a short discussion on some of the problems that can be encountered while putting your CoCo in a tower case.

Chris Johnson, who operates the **OS-9 Tacoma BBS**, gave a presentation on accessing and using a Telecommunication Bulletin Board with your CoCo and a Modem. He explained the equipment required to make a connection to a BBS and how to get around once you have access. He also explained how anyone could set up a BBS. Chris then gave a rundown of the difference "echoes" available on his BBS and some of the contents of each one. He wrapped up the presentation with an explanation of how Fido-Net exchanges information on a worldwide basis. Chris operates his BBS as a contribution to the CoCo Community. Anyone interested in joining the world of telecommunications can reach Chris's board at 566-8857.

At the next meeting Michael Stokes will begin his series on using "C" language on the CoCo. Please note that the meetings will now be on the second Thursday of each month and the starting time is now 6:45p.m.

-- Alan Johnson --

CoCo Fest II

June 26-27

Port Orchard, Washington

Washington CoCo/OS9 Clubs

Bellingham OS-9 Users Group

Meets the 4th Wednesday of each month at 7:30pm.

Bellingham Public Library, 210 Central

(206) 734-5806

Mt. Rainier CoCo Club

Meets the 2nd Thursday of each month at 7pm

Fern Hill Library, 84th and Yakima, Tacoma

Longview/Kelso CoCo Club

Call Steve Hammond for meeting information

(206) 577-7316

Port O'CoCo Club

Meets the 3rd Monday of each month at 7:30pm

Stock Market Grocery

Port Orchard

Seattle 68xxx Mug

Meets the 1st Tuesday of each month at 7:30pm

Gugenheim Hall, University of Washington

*Bellingham OS-9 Users Group
Presents . . .*

**5
Chapters**

**44
Pages**



**"Updates"
Disk
included**

written by
Scott Honaker and Rodger Alexander

Mail \$2 + \$1 shipping/handling to:

Bellingham OS-9 Users Group
3404 Illinois Lane, Bellingham, Wa 98226

FREE FREE FREE

Classified Ads available to subscribers

Mail in your want to BUY/SELL Ads

NOW

BENEFITS TO SUBSCRIPTION MEMBERS

As a subscribing member of the Bellingham OS-9 Users Group, you enjoy the following benefits:

1. Monthly Newsletter
2. FREE Public Domain Library (6 Megs)
3. FREE Classified Ads
4. Technical Assistance (734-5806)
5. On-Line OS-9 Conference (676-5787)

SUBSCRIPTION INFORMATION

The *OS-9 Newsletter* is compiled and printed monthly by the Bellingham OS-9 Users Group. Subscription rates are \$5 for 6 months or \$10 for 12 months. Mail your subscription check to: Rodger Alexander, 3404 Illionois Lane, Bellingham, WA 98226

NW-CoCo Fest II

CoCo Fest II is coming your way June 26 & 27th in Port Orchard, Washington. The theme for this year's Fest is: Celebrating The CoCo Family. Presentations will encompass information and demonstrations for the computer beginner to those deep into OS-9. The 26th is Friday and the evening is devoted getting acquainted and a presentation by a major speaker. Following the successful schedule of last year, Saturday morning begins with a no-holds-barred CoCo Swap Meet. Find those hard to find components of your system while liquidating the parts you don't need anymore. The morning winds up with a couple presentations by experts. The highlight is CoCo Fest's famous all-you-can-eat luncheon and Fest Keynote Guest speaker.

For more information, contact: Donald Zimmerman, 3046 Banner Rd SE, Port Orchard, WA 98366-8810, Phone 871-6535 or 871-0319(evenings). Fastest communications can be made to Sysop Chris Johnson, FidoNet 1:138/102.888

Washington State BBS List

FAR POINT BBS (Seattle)

RiBBS (Fido NET)
(206) 285-8335

COLUMBIA HTS. BB (Longview/Kelso)

RiBBS (Fido NET)
(206) 425-5804

DATA WAREHOUSE BBS (Spokane)

RiBBS (Fido NET)
(509) 325-6787

BARBEQUED RIBBS (Bellingham)

PC-Board (PC-Net)
(206) 676-5787 - CoCo Conference #5

OS-9 TACOMA BBS (Tacoma)

RiBBS (Fido NET)
(206) 566-8857

COCO EXPRESS BBS (Anacortes)

RiBBS (Fido NET)
(206) 293-1057

Color Computer Video Library



**Fixing the Multipak "TRQ"
Installing a 2nd floppy drive
Installing 512K Memory Board
Installing a Burke & Burke Hard Drive**

\$10

**Bellingham OS-9 Users Group
3404 Illinois Lane; Bellingham, Wa.98226**

The OS-9 Newsletter is published by the Bellingham OS-9 Users Group. Rodger Alexander, Editor. Publishing software is Microsoft Word for Windows 2.0. printing to a Hewlett Packard Desk Jet 500.

***OS-9 Newsletter
3404 Illinois Lane***